UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,984	05/29/2001	David A. Monroe	SYM005.125655	7399

24030 7590 01/16/2009
SHUGHART THOMSON & KILROY, PC
120 WEST 12TH STREET
KANSAS CITY, MO 64105

EXAMINER	
VO, TUNG T	
ART UNIT	PAPER NUMBER
2621	

MAIL DATE	DELIVERY MODE
01/16/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/866,984	MONROE, DAVID A.	
	Examiner	Art Unit	
	Tung Vo	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/29/2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *65,67-72 and 74-85* is/are pending in the application.

4a) Of the above claim(s) *1-64,66 and 73* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *65,67-72 and 74-85* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 65, 71-72, 74-75, 77-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kail, IV (US 5,959,529) in view Nelson et al. (US 6,226,933), in view of Ellenby et al. (US 5,815,411), in view of Kato (US 5,963,246), in view of Savoye et al (US 5,880,777), and further in view of D'Angelo et al. (US 5,963,131).

Re claims 65 and 75, Kail teaches a self-contained security (10 of fig. 1) and surveillance system (10 of fig. 2) for detecting and processing threat data (the condition of the subject), comprising:

a set of electromagnetic sensor modules (28 of fig. 1) for detecting electromagnetic threat emission data (the condition of the subject is considered a threat emission data), the set consisting of a visual light sensor module, a high performance night module, a forward looking infrared sensor module, and a laser range finder module (e.g. 28 of fig. 1, note one or more sensors would obviously be used, e.g. an audio/visual sensor and an electromagnetic sensor; col. 2, lines 22-28);

an integrated nuclear, biological and chemical sensor module (e.g. one or more sensors would be used as an integrated nuclear, biological and chemical sensor module, 28 of fig. 1) for

detecting threat agents data (e.g. biological condition sensor, a chemical sensor; col. 2, lines 22-28);

a hand-held base (e.g. 20 of fig. 1) for individually and interchangeably interfacing with the plurality of sensor modules set of electromagnetic sensor modules, and the integrated nuclear, biological and chemical sensor module (e.g. 28 of fig. 1, and col. 2, lines 22-28);

a common control module (22 of fig. 1, note the microprocessor 22 formats the data received from the sensor 28 and transmits it to the central monitoring device 14) for receiving and processing threat emission data, and nuclear, biological and chemical agents data, wherein the control module includes a control processor (22 of fig. 1, note reprogrammable monitoring and control system for portable, see abstract), a real-time image processing module (28 of fig. 1, a visual sensor as a camera captures image in real time), a GPS receiver (38 of fig. 1);

a communication link (24, 26, and 40 of fig. 1) for transmitting received and processed threat emission data, and nuclear, biological and chemical agents data to a base station (e.g. 14 of fig. 1, see also 14b of fig. 12);wherein the control module is structured and arranged to receive and process multiple forms of threat emission data (22 of fig. 1), the data provided in the form of nuclear, biological, chemical agents data, and electromagnetic threat emission data, or combinations thereof (28 of fig. 1), and

further wherein processing of data includes the functionalities of integration of geo-location data (38 of fig. 1), digital data storage (44 of fig. 1), and dynamic changes in control module menus and operations as a function of the module employed (32 of fig. 1), and a display screen (34 of fig. 1).

It is noted that Kail does not particularly teach (A) a radio frequency (RF) probe module for detecting threat RF data; (B) an image stabilization sensor for image stabilization, a magnetic compass, an inclinometer; a view finder; (C) a video switching, decoder, encoder and format conversion module, image compression; (D) noise reduction, contrast enhancement, image cropping, filtering, gain control; (F) motion detection and alarm notification as claimed.

Nelson teaches (A) a radio frequency (RF) probe module for detecting threat RF data (fig. 8) and suggests many variations and modifications will immediately become apparent to those skilled in the art (col. 20, lines 29-35).

Ellenby teaches (B) an image stabilization sensor for image stabilization (38, 33, and 20 of fig. 5), note an image stabilization system, at least one charge coupled device, CCD 20, and an optical ranging system 34), a magnetic compass (37 of fig. 5), an inclinometer (col. 13, lines 9-11); a view finder (30 of fig. 5); wherein Ellenby suggests the system that can be modified so that output from each of the gyros is made available to the control computer for calculations of the attitude and position of the portable assembly (col. 11, lines 17-20).

Kato teaches (C) a video switching (12 of fig. 5, e.g. switching video from 1a, 1b, 1c, 1d), decoder and encoder and format conversion module and image compression (16 of fig. 5); wherein Kato suggests the system (fig. 5) that can hold its own general usability in the combination of the multi-point control unit and the multi-point video conference terminals with a low cost.

Savoye teaches (D) noise reduction (160 of fig. 15), contrast enhancement (32 of fig. 1), image cropping (col. 44, lines 10-14), filtering (e.g. 24 of fig. 1, filter 253 of fig. 15), gain control (note the digital image processor (28 in FIG. 1) provides low-light-level adaptive

dynamic range compression, enabling both local contrast enhancement and local automatic gain control within the acquired image); Savoye suggests modifications of the described embodiments incorporating the spirit and substance of the invention may occur to persons skilled in the art (col. 49, lines 18-23).

D' Angelo teaches (F) motion detection (56 of fig. 2) and alarm notification (60 of fig. 2, see also fig. 4); D'Angelo further suggests Other modifications and substitutions can be made without departing from the scope of the invention (col. 5, lines 24-27).

Kail further suggests although a particular embodiment of the invention has been described in detail for purposes of illustration, various modifications and enhancements may be made without departing from the spirit and scope of the invention (col. 9, lines 14-19), this is evidence to one of ordinary skill in the art to modify any conventional and suitable device and method into Kail system.

As mentioned above, Kail, Nelson, Ellenby, Kato, Savoye, and D'Angelo suggest the modifications that can be made. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Nelson, Ellenby, Kato, Savoye, and D'Angelo into the system (fig. 1) of Kail to reduce the bandwidth transmission by compressing the thread data and enhancing the contrast of image.

Re claim 71, Kail further teaches wherein the base station is remotely located (14 of fig. 1, see 14b of fig. 2).

Re claim 72, Kail further teaches a remote image transceiver (e.g. 64, 50 of fig. 1) as a wireless.

Re claim 74, Kail further teaches wherein the communication link is selected from a group consisting of: a wireless link and a wired link (40 of fig. 1).

Re claim 76, Kail further teaches wherein the base includes a contained memory subsystem for storing data detected by the plurality of sensor modules (e.g. 44 of fig. 1, a memory may be a random access memory, a read only memory, a mass storage device, or any combination of these types of memory).

Re claim 77-82, see analysis in claims 65, 71-72, 74-76;

Re claim 83-85, see analysis in claims 65, 71-72, 74-76.

3. Claims 67-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kail, IV (US 5,959,529) in view Nelson et al. (US 6,226,933), in view of Ellenby et al. (US 5,815,411), in view of Kato (US 5,963,246), in view of Savoye et al (US 5,880,777), and in view of D'Angelo et al. (US 5,963,131), as applied to claim 65, and further in view of Kreichauf et al. (US 6,701,772).

Re claims 67-70, The combination of Kail, Nelson, Ellenby, Kato, Savoye, and D'Angelo wherein the forward looking infrared sensor module is uncooled; wherein the forward looking infrared sensor module is a near-infrared module; wherein the forward looking infrared sensor module is a mid-wave infrared module; wherein the forward looking infrared sensor module is a long-wave infrared module as claimed.

However, Kail suggests one or more sensors (28 of fig. 1) that would be used in the system, and Kail, Nelson, Ellenby, Kato, Savoye, and D'Angelo suggest modifications of the system would be made.

Kreichauf teaches wherein the forward looking infrared sensor module is uncooled; a near-infrared module; a mid-wave infrared module; a long-wave infrared module (col. 4, lines 29-51, although any suitable detector either known or unknown at the present time may be used, the agent detectors can include, for example, spectrographic analyzers including visible, infrared, near infrared, ultraviolet, and/or fluoroscopic. So-called "chemical noses" or "electrical noses" may be used to identify agents).

Therefore, taking the teachings of Kail, Nelson, Ellenby, Kato, Savoye, and D'Angelo, and Kreichauf as a whole, it would have been obvious to one of ordinary skill in the art to modify the teachings of Kreichauf into the combined system of Kail, Nelson, Ellenby, Kato, Savoye, and D'Angelo to alternatively use the near, mid-wave, and long-wave infrared module so that the module easily measure the intensity or concentration of the harmful data presence at different range.

4. Claims 65, 67-72, and 74-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kreichauf et al. (US 6,701,772) Nelson et al. (US 6,226,933), in view of Gross (US 5,864,481), in view of Kato (US 5,963,246), in view of Savoye et al (US 5,880,777), and further in view of D'Angelo et al. (US 5,963,131).

Re claim 65, Kreichauf teaches a self-contained security (100, 130, 160, 180, 200, 220, 240, and 400 of fig. 10) and surveillance system (300 of fig. 10) for detecting and processing threat emissions (col. 1, lines 13-32, harmful agent), comprising:

a set of electromagnetic sensor modules for detecting electromagnetic threat emission data (100, 130, 160, 180, 200, 220, 240, and 400 of fig. 10), the set consisting of a visual light

sensor module (e.g. a camera is included with harmful agent sensor 104 of fig. 1, col. 4, lines 57-62), a high performance night module, a forward looking infrared sensor module, and a laser range finder module (col. 4, lines 29-51, although any suitable detector, which is a high performance night module, a forward looking infrared sensor module, and a laser range finder module, either known or unknown at the present time may be used, the agent detectors can include, for example, spectrographic analyzers including visible, infrared, near infrared, ultraviolet, and/or fluoroscopic. So-called "chemical noses" or "electrical noses" may be used to identify agents);

an integrated nuclear, biological and chemical sensor module for detecting threat agents data (col. 4, lines 37-40);

a hand-held base (300 of fig. 10, a mobile agent detector system (300) is hand-held base; note portable bioassay devices, reagents, and readable test strips may also be used as agent detectors, col. 4, lines 49-51) for individually and interchangeably interfacing with the plurality of sensor modules (100, 130, 160, 180, 200, 220, 240, and 400 of fig. 10, note one or more detectors would obviously be used);

a common control module (302 of fig. 10; a central controller includes a computer and a display screen to receive the threat data and the image) for receiving and processing the threat data (302 of fig. 10, the central controller has the computer that enables to process the data, col. 33-42), wherein the control module includes a control processor (302 of fig. 10, the computer is programmable to control the detectors), an image stabilization sensor (col. 4, lines 29-51, note although any suitable detector, which is an image stabilization sensor, either known or unknown at the present time may be used), a real-time image processing module (302 of fig. 10, the

computer processes a real-time image captured by the camera), a video switching (col. 2, lines 19-21, cameras would obviously be controlled by controller, 302 of fig. 10, a user would enable to select (switch) a particular camera), and positions of the roaming detectors, as well as mapping software to map the location of the individual moving detectors, this would obviously suggest a GPS receiver; and

a communication link (100, 130, 160, 180, 200, 220, 240, and 400 of fig. 10, has wireless link) for transmitting received and processed threat data to a base station (note transmit photographic views of the area surrounding the device to a central site);

wherein the control module (302 of fig. 10) is structured and arranged to receive and process multiple forms of threat data (col. 8, lines 33-42), the data provided in the form of nuclear, biological, chemical agents data (e.g. high concentrations of harmful agents, col. 8, lines 35-38), and electromagnetic threat emission data (note portable mass spectrometers may also be used), or combinations thereof, and integration of geo-location data (see Abstract, note some systems include locating devices (fig. 10) for determining positions of the roaming detectors, as well as mapping software to map the location of the individual moving detectors), and dynamic changes in control module menus and operations as a function of the sensor module employed (col. 8, lines 21-42), and a display screen (310 of fig. 10, CRT or console).

Kreichauf suggests that changes may be made in details, particularly in maters of shape, sizes, and arrangement of parts without exceeding the scope of the disclosure (col. 9, lines 2-4), so this is evidence to one of ordinary skill in the art to modify any conventional and suitable device or method into the system of Kreifchauf.

It is noted that Kreichauf does not particularly teach (A) a radio frequency (RF) probe module for detecting threat RF data; (B) a decoder, encoder and format conversion module and image compression, a digital data storage, a magnetic compass, a view finder, inclinometer, and a GPS receiver, (C) processing data includes the functionalities of noise reduction, contrast enhancement, image stabilization, image cropping, filtering, gain control, (D) processing data includes the functionalities of motion detection and alarm notification as claimed.

Nelson teaches (A) a radio frequency (RF) probe module for detecting threat RF data (fig. 8) and suggests many variations and modifications will immediately become apparent to those skilled in the art (col. 20, lines 29-35).

Gross teaches (B) a decoder/encoder and format conversion module and image compression (200 of fig. 2, the computer includes the PCMCIA video assembly provides for image capture from the video camera (535 of fig. 5) or thermal weapon system (525 of fig. 5), and image compression/decompression for captured or stored images) and a digital data storage (201a of fig. 3, note the computer 201a use Personal Computer Memory card International Association (PCMCIA) technology and standard low power components, such as a 486 computer card, removable and non-removable memory cards, video card, and standard I/O interface cards, to support upgrades to the computer system) , a magnetic compass and a view finder (500 of fig. 2, see 530 of fig. 5, note Laser Range Finder/Digital Compass Assembly (LRF/DCA)), inclinometer (e.g. 610a of fig. antennas, note the conical shape of the antennas provide a hemispherical pattern coverage for all position use, low profile and superior axial ratio performance at low elevation angles, col.5, lines 22-25), and location and distance as GPS system (245 of fig. 2), wherein Gross suggests the system would be improvement in the ability to

rapidly exchange accurate surveillance data on enemy positions, target locations and enhanced command and control between the user, squad and central station.

Savoye teaches (C) noise reduction (160 of fig. 15), contrast enhancement (32 of fig. 1), image cropping (col. 44, lines 10-14), filtering (e.g. 24 of fig. 1, filter 253 of fig. 15), gain control (note the digital image processor (28 in FIG. 1) provides low-light-level adaptive dynamic range compression, enabling both local contrast enhancement and local automatic gain control within the acquired image); Savoye suggests modifications of the described embodiments incorporating the spirit and substance of the invention may occur to persons skilled in the art (col. 49, lines 18-23).

D' Angelo teaches (D) motion detection (56 of fig. 2) and alarm notification (60 of fig. 2, see also fig. 4); D'Angelo further suggests Other modifications and substitutions can be made without departing from the scope of the invention (col. 5, lines 24-27).

Since Kreichauf, Nelson, Gross, Savoye, and D'Angelo teaches the limitations above and modifications that can be made, it would have been obvious to one of ordinary skill in the art to modify the teachings of Nelson, Gross, Savoye, and D'Angelo into the system of Kreichauf to improve the lethality, survivability, mobility, and communications capabilities of the users while keeping them immediately responsive and flexible enough to operate in an uncertain and frequently chaotic environment.

Re claims 67-70, Kreichauf teaches wherein the forward looking infrared sensor module is uncooled; a near-infrared module; a mid-wave infrared module; a long-wave infrared module (col. 4, lines 29-51, although any suitable detector either known or unknown at the present time may be used, the agent detectors can include, for example, spectrographic analyzers including

visible, infrared, near infrared, ultraviolet, and/or fluoroscopic. So-called "chemical noses" or "electrical noses" may be used to identify agents).

Re claim 71 Kreichauf teaches wherein the base station is remotely located (300 of fig. 10, as remote base-central is a central site).

Re claim 72, Kreichauf teaches a remote image transceiver (426 of fig. 9 and 306 of fig. 10).

Re claim 74, Kreichauf further teaches wherein the communication link is selected from a group consisting of: a wireless link and a wired link (RF, 308 of fig. 10).

Re claim 76, Kreichauf further teaches wherein the base includes a contained memory subsystem for storing data detected by the plurality of sensor modules (col. 8, lines 36-54, a recorded in the computer as a memory).

Re claims 77-82, see analysis in claims 65, 67-72, 74-76;

Re claims 83-85, see analysis in claims 65, 67-72, 74-76.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tung Vo/

Primary Examiner, Art Unit 2621